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09/896,778	06/29/2001	Sharon E. Minder	BOC920000047US1	8891

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EXAMINER

FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 06/18/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/896,778

Applicant(s)

MINDER ET AL.

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-36 are presented for examination.

***Information Disclosure Statement***

2. The references cited in the IDS, PTO-1449, have been fully considered.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-36 are rejected under 35 U.S.C. 102(b) as anticipated by Beavin et al. (US Pat. No. 5,940,819).

As per claims 1, 16, 31 and 33, Beavin teaches a method for performing database operations as claimed, the method comprises the steps of: reading a first plurality of elements of a first query from a first set of one or more tables (thus, generation of the query plan and selection of an access path involves processor consideration of both the available access paths ‘indexes, sequential reads, etc.’ and system-held statistics on the data to be accessed ‘the size of the table, the number of distinct values in a particular column, etc.’, to choose what the RDBMS processor considers to be the most efficient access path for the query, the selection of the most efficient access path utilizes query, database and system information that is conventionally available to SQL optimizers; which is readable as reading a first plurality of elements of a first query from a first set of one or more tables)(see col. 10, lines 50-64). Further, in column 1, lines 25-29, Beavin teaches SQL provides table operations with which users can request database

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information and form one or more new tables out of the operation results, data from multiple tables, or views, can be linked to perform complex sets of table operations with a single statement;

assembling a query string from the first plurality of elements (thus, another operation permitted by SQL is the 'JOIN' operation, which concatenates all or part of two or more tables to create a new resulting table; which is equivalent to assembling a query string from the first plurality of elements)(see col. 1, lines 33-35); and

executing the first query string to retrieve results from one or more source data tables (thus, wherein the query processor executed step of receiving comprises the steps of detecting a parameter of the query that indicates an access path will be specified by the user; and retrieving a data table that specifies the access path desired by the user; which is equivalent to executing the first query string to retrieve results from one or more source data tables)(see col. 15, lines 21-26).

As per claims 2 and 17, Beavin teaches the method as claimed, wherein the step of reading a first plurality of elements includes the sub-steps of reading a name of a second table from a first table (thus, the system statistics considered in choosing from available access paths include statistics on the size of tables, the number of distinct values in columns of tables; which is readable as reading a first plurality of elements includes the sub-steps of reading a name of a second table from a first table)(see col. 2, lines 3-6); and

reading a plurality of arguments for the query string from the second table (thus, sequential read operations needed, and the like to determine how it will retrieve data, the system statistics considered in choosing from available access paths include statistics on the size of tables, the number of distinct values in columns of tables; which is readable as reading a first

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plurality of elements includes the sub-steps of reading a name of a second table from a first table)(see col. 2, lines 1-6).

As per claims 3 and 18, Beavin teaches the method as claimed, wherein the step of assembling the query string includes the sub-step of assembling a query string that includes a first query language command and the plurality of arguments, (see col. 1, lines 33-35).

As per claims 4, 19 and 22, Beavin teaches the method as claimed, wherein the step of reading a first plurality of elements of a first query from the first set of one or more tables further includes the sub-step of reading one or more names corresponding to one or more source data tables from the first table, (see col. 2, lines 1-6).

As per claims 5 and 20, Beavin teaches the method as claimed, wherein the step of reading a plurality of arguments for the first query language command from the second table further includes the sub-step of reading a plurality of names of columns of the one or more source data tables from the second table (thus, generation of the query plan and selection of an access path involves processor consideration of both the available access paths 'indexes, sequential reads, etc.' and system-held statistics on the data to be accessed 'the size of the table, the number of distinct values in a particular column, etc.', to choose what the RDBMS processor considers to be the most efficient access path for the query, the selection of the most efficient access path utilizes query, database and system information that is conventionally available to SQL optimizers, the selected query plan can be displayed to the user in response to the inclusion of the explain function in the user interactive commands; which is readable as reading a plurality of arguments for the first query language command from the second table further includes the

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sub-step of reading a plurality of names of columns of the one or more source data tables from the second table)(see col. 10, lines 50-64).

As per claims 6 and 21, Beavin teaches the method as claimed, wherein the step of assembling the query string includes the sub-step of concatenating together a first plurality of elements that include the name of the one or more source data tables and the plurality of names of columns (thus, another operation permitted by SQL is the "JOIN" operation, which concatenates all or part of two or more tables to create a new resulting table, and then performing a JOIN of that data after a SELECT operation to retrieve employee names and job titles from another table; which is readable as assembling the query string includes the sub-step of concatenating together a first plurality of elements that include the name of the one or more source data tables and the plurality of names of columns)(see col. 1, lines 30-35).

As per claim 7, Beavin teaches the method as claimed, further comprises the step of reading a second query language command from the first table, (see col. 10, lines 50-64).

As per claim 8, Beavin teaches the method as claimed, further comprises the step of reading a plurality of names of columns of a target data table from the second table, (thus, sequential read operations needed, and the like to determine how it will retrieve data, the system statistics considered in choosing from available access paths include statistics on the size of tables, the number of distinct values in columns of tables; which is readable as reading a plurality of names of columns of a target data table from the second table)(see col. 2, lines 1-6).

As per claims 9 and 24, teaches the method as claimed, wherein the step of assembling the query string includes the sub-step of concatenating together a second plurality of elements that include the second query language command and the plurality of names of columns of the

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target data table (thus, another operation permitted by SQL is the "JOIN" operation, which concatenates all or part of two or more tables to create a new resulting table, and then performing a JOIN of that data after a SELECT operation to retrieve employee names and job titles from another table; which is readable as assembling the query string includes the sub-step of concatenating together a second plurality of elements that include the second query language command and the plurality of names of columns of the target data table)(see col. 1, lines 30-35).

As per claims 10, 25 and 32, in addition to the discussion in claim 1, Beavin further teaches assembling a data base table storage command string from the second plurality of elements (thus, another operation permitted by SQL is the 'JOIN' operation, which concatenates all or part of two or more tables to create a new resulting table; which is readable as assembling a data base table storage command string from the second plurality of elements)(see col. 1, lines 33-35) and executing the data base table storage command string in order to modify a target data table (see col. 8, lines 26-32).

As per claims 11, 26 and 36, Beavin teaches the method as claimed, wherein said storage command string is Structured Query Language UPDATE command string (see col. 12, 61-63 lines 15-16).

As per claims 12 and 27, Beavin teaches the method as claimed, wherein said storage command string is Structured Query Language INSERT command string (see col. 9, lines 42-61).

As per claims 13 and 28, the limitations of claims 13 and 28 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claims 14 and 29, Beavin teaches the method as claimed, wherein said second plurality of elements contain data used to specify the order in which data elements are to be stored (see col. 9, lines 42-58).

As per claims 15 and 30, teaches the method as claimed, further comprises the step of executing said storage command string so as to cause all or a part of said source data set to be stored, (see col. 8, lines 26-32).

As per claim 23, Beavin teaches the computer readable medium as claimed wherein the step of reading a plurality of arguments for the query language command from the second table includes the sub-step of reading a plurality of names of columns of a target data table from the second table (thus, generation of the query plan and selection of an access path involves processor consideration of both the available access paths 'indexes, sequential reads, etc.' and system-held statistics on the data to be accessed 'the size of the table, the number of distinct values in a particular column, etc.', to choose what the RDBMS processor considers to be the most efficient access path for the query, the selection of the most efficient access path utilizes query, database and system information that is conventionally available to SQL optimizers, the selected query plan can be displayed to the user in response to the inclusion of the explain function in the user interactive commands; which is as reading a plurality of arguments for the query language command from the second table includes the sub-step of reading a plurality of names of columns of a target data table from the second table)(see col. 10, lines 50-64).

As per claim 34, in addition to the discussion in claim 25, teaches a data processing system further comprises means for reading a second plurality of elements of a query from a second set of one or more tables (thus, generation of the query plan and selection of an access



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path involves processor consideration of both the available access paths 'indexes, sequential reads, etc.' and system-held statistics on the data to be accessed 'the size of the table, the number of distinct values in a particular column, etc.', to choose what the RDBMS processor considers to be the most efficient access path for the query, the selection of the most efficient access path utilizes query, database and system information that is conventionally available to SQL optimizers; which is readable as reading a second plurality of elements of a query from a second set of one or more tables)(see col. 10, lines 50-59). Further, in column 1, lines 25-29, Beavin teaches SQL provides table operations with which users can request database information and form one or more new tables out of the operation results, data from multiple tables, or views, can be linked to perform complex sets of table operations with a single statement; means for assembling a data base table storage command string from the second plurality of elements (thus, another operation permitted by SQL is the 'JOIN' operation, which concatenates all or part of two or more tables to create a new resulting table; which is readable as assembling a data base table storage command string from the second plurality of elements)(see col. 1, lines 33-35).

As per claim 35, Beavin teaches a computer-readable medium having stored thereon a data structure as claimed includes: a name of a first table that includes data to be processed (thus, generation of the query plan and selection of an access path involves processor consideration of both the available access paths 'indexes, sequential reads, etc.' and system-held statistics on the data to be accessed 'the size of the table, the number of distinct values in a particular column, etc.', to choose what the RDBMS processor considers to be the most efficient access path for the query, the selection of the most efficient access path utilizes query, database and system information that is conventionally available to SQL optimizers; which is readable as a name of a

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first table that includes data to be processed)(see col. 10, lines 50-64); and a name of a second table that includes arguments to be used in composing a database command to process the data (thus, SQL provides table operations with which users can request database information and form one or more new tables out of the operation results, data from multiple tables, or views, can be linked to perform complex sets of table operations with a single statement, the tables operations are specified in SQL statements called queries; which is readable as a name of a second table that includes arguments to be used in composing a database command to process the data)(see col. 1, lines 25-30).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McPherson, Jr. et al. US Patent Number 5,546,570 relates to database management, in particular evaluation strategy for executing SQL. Lohman et al. US Patent Number 6,345,267 relates to database management, in particular evaluation strategy for executing SQL. Klein et al. US Patent Number 6,453,313 relates to relational database system.

### ***Conclusion***

5. Any inquiry concerning this communication from examiner should be directed to Jean Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Mrs. KIM VU can be reached at (703) 305-8449. The FAX phone numbers for the Group 2100 Customer Service Center are: ***After Final*** (703) 746-7238, ***Official*** (703) 746-7239, and ***Non-Official*** (703) 746-7240. NOTE: Documents transmitted by facsimile will be entered as official documents on the file wrapper unless clearly marked "***DRAFT***".

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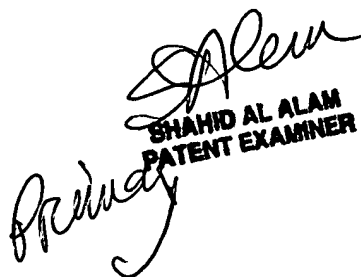
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2100 Customer Service Center receptionist whose telephone numbers are (703) 306-5631, (703) 306-5632, (703) 306-5633.



Jean Bolte Fleurantin

6/13/03

JBF/



SHAHID AL ALAM  
PATENT EXAMINER